

Please cancel Claims 25 and 26, without prejudice.

REMARKS

The following Preliminary Amendment is being submitted in conjunction with a Request for Continued Prosecution Application under 37 C.F.R. § 1.53(d) and a three-month extension of time. Following entry of the present amendment the remaining claims are 1, 9, 14, 19, 20, 22, 23, 24, 27, 28, and 29. Claims 1 and 19 are independent.

Independent Claims 1 and 19 have been amended to require that the molding portion of the composite element be a thermoplastic polyurethane having a thickness of from 2 to 10 mm. In addition, Claim 1 requires that the molding “comprises the reaction product of (a) isocyanates with (b) isocyanate reactive compounds, where the ratio of isocyanate groups in (a) to isocyanate reactive groups in (b) is greater than 1.06:1”.

Both independent Claims require that the molding be a thermoplastic polyurethane. Thermoplastics are defined as compounds that are “capable of being repeatedly softened by heating and hardened by cooling through a temperature range characteristic of the plastic and, in the softened state, of being repeatedly shaped by flow into articles by moulding, extrusion or forming” (European Standard EN ISO 472).

The Examiner rejected Claims 19, 21-23, 25 and 26 under 35 U.S.C. § 102(b) as being anticipated by *Jourquin, et al.* Rejection of a claim under 35 U.S.C. § 102(b) requires that each and every limitation of the claim be disclosed in a single prior art reference, if even a single limitation is not found in the prior art reference then such rejection is improper and must be withdrawn. *Jourquin, et al.* discloses a microcellular elastomeric polyurethane core that

includes an integral skin wherein the skin could be a non-cellular polyurethane. The field of integral skin polyurethane chemistry is totally different from that of the present invention. One of ordinary skill in the art knows that an integral foam skin like shown in *Jourquin, et al.* is completely different from a thermoplastic polyurethane molding. Such a skin would not have the characteristics of a thermoplastic that allows it to be repeatedly softened and reshaped and then to hold the shape once it cools. In addition, there is no disclosure in *Jourquin, et al.* of a thermoplastic molding having the dimensions required in current Claim 19 of from 2 millimeters to 10 millimeters. Because Claim 19 includes numerous limitations not found in *Jourquin, et al.*, the rejection of this claim, and Claims 22 and 23, which depend therefrom, under 35 U.S.C. § 102(b) based on *Jourquin, et al.* is improper and should be withdrawn. By the present amendment, Claims 21, 25, and 26 have been cancelled, thus the rejection of these claims is moot.

The Examiner rejected Claims 1, 9, 14, and 27-29 under 35 U.S.C. § 103(a) as being unpatentable over *Krech, et al.* in view of *Hoppe, et al.* Rejection of a claim under 35 U.S.C. § 103(a) based on a combination of references requires that there be some teaching or motivation found within the references themselves that would lead one of ordinary skill in the art to combine the references and, furthermore, that once combined the references must either disclose each and every limitation of the claim or make obvious any such limitations not disclosed. Absent a teaching or motivation within the references themselves for combining the references is improper for the Examiner to combine the references. *In re: Sang Su Lee*, 277 F.3d 1338 (Fed. Cir. 2002), citing *Brown & Williamson Tobacco Corp. v. Phillip Morris, Inc.*, 229 F.3d 1120, 1124-25 (Fed. Cir. 2000).

Hoppe, et al. discloses a molding of a cellular polyurethane elastomer for the production of a cushioning element wherein the surface of the elastomer is sealed by a skin of polyurethane to prevent water, dust and dirt from penetrating into the cellular elastomer. In *Hoppe, et al.* the skin is formed by dip coating or spray coating the molding using a 1-component or 2-component polyurethane lacquer. It is stated in Column 10, Lines 57-68, that preferably aqueous solutions or dispersions of polyurethane are used. In addition, *Hoppe, et al.* discloses that the polyurethane be "a continuous, tight, non-porous skin of polyurethane or polyurethane urea having a thickness of from 0.05 to 1 mm, preferably from 0.1 to 0.5 mm and, with particular preference, from 0.2 to 0.3 mm," see the Abstract. Such a skin not only does not have the dimensions required in independent Claim 1 but it is also not a thermoplastic polyurethane as required by Claim 1. The polyurethane lacquer as disclosed in *Hoppe, et al.* include a cross-link structure that would not enable it to behave as a thermoplastic. *Krech, et al.* discloses a process for the production of microcellular polyurethane elastomers and their use as dampening elements. *Krech, et al.* does not provide any disclosure of composite elements comprising microcellular polyurethane elastomers and thermoplastic polyurethane moldings as required in Claim 1. A combination of *Krech, et al.* with *Hoppe, et al.* does not supplement the deficiencies in either nor does it produce in combination a composite element having the limitations required by Claim 1 of the present invention. Thus, because Claim 1 includes numerous limitations neither found in nor made obvious by *Krech, et al.* in view of *Hoppe, et al.* the rejection of Claim 1, and Claims 9, 14, and 27-29, which depend therefrom, under 35 U.S.C. § 103(a) is improper and should be withdrawn.

Applicants' attorney respectfully submits that the claims as amended are now in condition for allowance and respectfully requests such allowance.

Respectfully submitted,

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MARKED UP VERSION OF CLAIMS



1. (Thrice Amended) Composite elements comprising:
- (i) a [first layer] molding comprising thermoplastic polyurethanes and
having a thickness of from 2 to 10 mm, said molding bonded [thereto] to
- (ii) a second layer comprising microcellular polyurethane elastomers having
a density of from 300 to 700 kg/m³, a tensile strength to DIN 53571 of from 3 to 8 N/mm² an
elongation at break to DIN 53571 of from 350 to 550%, a tear propagation resistance to
DIN 53515 of from 8 to 30 N/mm and a rebound resilience to DIN 53512 of from 50 to 60%,
wherein said molding comprises the reaction product of (a) isocyanates with (b) isocyanate
reactive compounds, where the ratio of isocyanate groups in (a) to isocyanate reactive groups in
(b) is greater than 1.06:1.

19. (Amended) A composite element comprising:
- i) a thermoplastic polyurethane [specimen] molding having a thickness of
from 2 to 10 mm and
- ii) a microcellular polyurethane elastomer layer bonded to at least one
surface of said [specimen] molding.

22. (Amended) The composite element of Claim 19 wherein said elastomer layer is
bonded to an inner surface[s] of said [specimen] molding.

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23. (Amended) The composite element of Claim 19 wherein said elastomer layer is bonded to an outer surface[s] of said [specimen] molding.